

EXHIBIT 3

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11 **UNITED STATES DISTRICT COURT**
12 **SOUTHERN DISTRICT OF CALIFORNIA**

13 JEFFREY MOLNAR, WESLEY
14 THORNTON, AILEEN MARTINEZ,
15 CHIQUITA BELL, TEYIA BOLDEN, and
16 ANTOINETTE STANSBERRY
17 individually and on behalf of all others
18 similarly situated,

19 v.

20 NCO FINANCIAL SYSTEMS, INC., a
21 Pennsylvania Corporation,

22 *Defendant.*

Case No. 3:13-cv-00131-BAS-JLB

**DECLARATION OF JEFFREY A.
HANSEN IN SUPPORT OF
PLAINTIFF'S MOTION FOR CLASS
CERTIFICATION**

23
24 I, Jeffrey A. Hansen, hereby declare as follows:

25 1. I am an adult over the age of 18 and a resident of the state of California.

26 Unless indicated otherwise, I have personal knowledge of each of the matters stated
27 herein, and if called to testify I could and would testify competently about them. I make
28

1 this declaration in support of Plaintiff Wesley Thornton's Motion for Class
2 Certification.

3 2. I am the principal of Hansen Legal Technologies, Inc. My firm is in the
4 business of handling Information Technology, including investigations and analysis of
5 electronic data. I have served as an expert or consultant in a number of cases. I currently
6 reside at 2625 Kings View Circle, Spring Valley, California.

7 3. I have served as an expert witness and consultant to law firms in order to
8 conduct computer forensics. I also assist in electronic discovery issues. My firm was
9 retained in this case to assist Plaintiff's counsel in evaluating and analyzing electronic
10 data related to outbound calls and other electronic data associated with computer
11 systems and/or telephone dialing systems that may have been used by Defendant or its
12 agents.

13 4. I have extensive experience dealing with data warehousing, including data
14 warehousing related to telemarketing and autodialers in general. I am also a consultant
15 to companies that engage in the use of autodialers, and I am familiar with their use and
16 their procedures and all technical aspects of that business. In that capacity, I have
17 assembled autodialers, interfaced with telecommunication providers, configured,
18 maintained and operated all aspects of autodialers. I am familiar with the manner in
19 which outbound dial lists are used and maintained in the telemarketing industry, which I
20 understand to be similar to the debt collection industry. I am also familiar with the
21 procedures involved, and I have personally engaged in data warehousing regarding the
22 compilation of certain lists, including demographic and target audience lists for
23 telemarketing, and have personally repaired defective lists to eliminate improperly
24 formatted and corrupted data. I am also familiar with and know how to use the
25 databases containing cell block identifiers and ported number lists, both of which
26 identify cellular type telephone numbers.

27 5. Over the last twenty five (25) years, I have had extensive experience in a
28 broad range of areas in the electronic and information technology fields and obtained

1 many certifications such as MCP 4.0, A+, Network+, MCP 2000, MCSA, MCSE,
 2 Linux+, I-Net+, Security+, CIW Security Analyst. From the hardware perspective, I
 3 have extensive experience in troubleshooting and repairing at the component level, and
 4 building various systems for various purposes. I have designed, built and maintained
 5 computer networks in a variety of environments from various businesses to very large
 6 DoD networks. I have taught approximately 1,000 others the skills to become network
 7 engineers themselves. I have had extensive experience in dealing with security breaches
 8 and hardening computer networks against those breaches. I have handled many
 9 computer forensic and E-Discovery matters, including internal investigations at various
 10 companies, working at the FBI sponsored Regional Computer Forensics Laboratory,
 11 and founded a computer forensics and E-Discovery firm over 7 years ago. I have also
 12 had extensive experience with the set-up and use of predictive and auto dialers. I have
 13 set up and maintained all aspects of predictive dialers and autodialers from 3 line
 14 predictive dialers to outbound call centers with over 1,000 phone lines. When building
 15 these systems, I have used various software and hardware solutions for predictive and
 16 autodialers, both proprietary and open source, and customized those systems for their
 17 particular uses. I myself have used and maintained predictive and autodialers, and
 18 trained others to do the same. (See Exhibit A – Resume of Jeffrey Hansen).

19 6. I have been called to testify in the cases captioned *Craig Casey v. Valley*
 20 *Center Insurance Agency Inc.* (San Diego Superior Court Case No: 37-2008-
 21 00004378-SC-SC-CTL), *Stemple v. QC Holdings* (Southern District of California
 22 Case No: 12-CV-1997-CAB-WVG), *Hahn v. Massage Envy Franchising*,
 23 (Southern District of California Case No: 3:12-cv-00153-DMS-BGS), *Abdeljalil*
 24 *v. General Electric Capital Corporation*, (Southern District of California Case
 25 No: 12-cv-02078-JAH-MDD), *Jasmina Webb v. Healthcare Revenue Recovery*
 26 *Group, LLC*. (Northern District of California Case No: C 13-0737 JD), *Amanda*
 27 *Balschmiter v TD Auto Finance, LLC* (Eastern District of Wisconsin Case No:
 28 2:13-cv-01186), *Jordan Marks v Crunch San Diego, LLC* (Southern District of

California Case No. 14-CV-0348-BAS (BLM)), *Peter Olney v Job.com* (Eastern District of California Case No: 1:12-cv-01724-LJO-SKO), *Carlos Guarisma v ADCAHB Medical Coverages, Inc. and Blue Cross and Blue Shield of Florida, Inc.* (Southern District of Florida Case No: 1:13-cv-21016-JLK), *Farid Mashiri v Ocwen Loan Servicing, LLC* (Southern District of California Case No: 3:12-cv-02838), *Monty J. Booth, Attorney at Law, P.S. v Appstack, Inc.* (Western District of Washington Case No. 2:13-cv-01533-JLR), *Rinky Dink, Inc. d/b/a Pet Stop v World Business Lenders, LLC.* (Western District of Washington Case No. 2:14-cv-00268-JCC), *Michael Reid and Dave Vacarro v I.C. Sytems, Inc.* (District of Arizona Case No. 2:12-cv-02661-ROS), *Jeffrey Molar v NCO Financial Systems* (District of So. Cal. Case No. 3:13-cv-00131-BAS-JLB) and I have served as an expert in over fifty (50) TCPA class action lawsuits.

7. In addition to the documents identified in my Rule 26(a)(2) Expert Disclosure, Written Report, and Declaration, for the purposes of this Declaration, I reviewed the following documents: (1) the "Fact Sheet" account notes for the named-plaintiffs in this action, provided by NCO (Bates Nos. NCO0002189–2437); (2) the Action, Result, and Supplement Codes provided by NCO (Bates Nos. NCO002157–2188, NCO016717–16751); (3) the representative call sample produced by NCO (Bates Nos. NCO015496–16716); and (4) the Transcript of the Rule 30(b)(6) Deposition of Greg Stevens.

Use of Python Computer Scripts to Identify Putative Class Members from Within NCO's Records

8. I was provided a sample of [REDACTED] calls made by NCO, in Microsoft Excel format. That sample can be used to form targeted queries to identify only those purported debtors in NCO's records who meet the definitions of the proposed Classes in this case—i.e., purported debtors that were (a) called on cell phones, (b) about a Qualifying Debt, (c) with one of NCO's dialers or with its LiveVox dialer's prerecorded voice, and (d) for whom NCO has no indicia of consent to call. Attached as Exhibit B,

1 and C are two Python computer scripts that perform that function (for the Autodialer
2 Class and Robocall Class respectively).¹

3 9. The two scripts were used to identify those records of debtors in the
4 sample potentially meeting the definitions of the Classes and isolate them in separate
5 lists (or databases).

6 10. First, I excluded the “zip” column from the sample. Then, the scripts
7 search all remaining columns in the sample to determine if they contain a 10-digit
8 number using a regular expression. If the scripts find a phone number contained in any
9 column, it is added to a new column containing the phone number identified for each
10 account.

11 11. The scripts then assess the phone numbers called for each customer
12 account (i.e., “Master #”), and identify the first number called in association with each
13 account. The reasoning here is that the first number called is most likely to have been
14 provided to NCO’s client directly by the consumer, arguably evincing consent to be
15 called on that phone number about that particular debt. From there, the scripts remove
16 all calls made to the list of first-called numbers.

17 12. Next, the scripts eliminate all calls made prior to the class period (i.e., prior
18 to January 16, 2009). At this point, the scripts leave a list of calls made (1) on January
19 16, 2009 or later, and (2) exclusively to phone numbers that were not the first number
20 called regarding any account.

21 13. Next, the scripts run a series of steps designed to remove phone numbers
22 for which there is any potential evidence of consent.

23 14. As part of this process of eliminating phone numbers for which potential
24 consent exists, the scripts remove all calls to any telephone number with any of the
25 following entries in the “Current Consent” column: CLIENT, PRIOR CLIENT,
26 PRIOR_CLIENT, DEBTOR, CONSUMER, CREDIT, WRITTEN, or ORAL.

27
28 ¹ These scripts are referred to as the “Autodialer Class script” and the “Robocall
Class script,” respectively.

1 15. Similarly, the scripts remove all calls to any telephone number that has any
2 of the following entries listed in the "Transaction Comment" column for *any* call placed
3 to that number: VERIF, OKAY, CELL, CONSENT, CONFIRM, PHN NUMBER,
4 UNASSIGNED, INVALID PHONE, FAX, MRD, ATTY, or NOT GOING THRU.

5 16. Additionally, the scripts all calls to any telephone number that has *any* call
6 placed to it with *any* of the following combinations of datapaths and action codes:

- 7 a. datapath u40-marlin: SU
- 8 b. datapath n7-purchase: CP, or SU
- 9 c. datapath u15-nag: CP, or SG
- 10 d. datapath n15-nag: EE, SU, UD, or UR
- 11 e. datapath n6-main: CP, or SG
- 12 f. datapath n6-main-archive: CP, or SG
- 13 g. datapath n6-main2: CP, or SG.

14 17. Finally, the Autodialer Class script (Ex. B) searches the "User/Dialer"
15 column, and *limits* the remaining calls to those made with NCO's dialers, as
16 demonstrated through the following known codes: IVR, MQ, VOX, BUF, MT, GL, Q3,
17 N2, N1, N4, T1, T2, T3, B5, B1, RA, ZPX, X26, WQZ, or B3.

18 18. At this same step, the Robocall Class script (Ex. C) searches the
19 "Transaction Comments" column and *limits* the remaining calls to those containing
20 known pre-recorded voice abbreviations associated with the LiveVox dialer.

21 19. Specifically, the Robocall Class script limits results to those calls with the
22 following entries in the comment field: LV MACHINE LEFT MESSAGE, LV
23 MACHINE LM, LV PARTIAL, LV PARTIAL MESSAGE LEFT, LV PARTIAL
24 MESSAG, LV PARTIAL ME SSAGE LEFT, LV MACHINE LEFT MES SAGE, LV
25 LISTENED, DELIVEREDMACHINE, DELIVEREDPERSON.

26 20. The end result of the Autodialer Class script (Ex. B) is a list of calls made
27 using NCO's dialers, to phone numbers that do not contain any indication of consent.
28

21. Thus, Robocall Class script (Ex. C) takes NCO's data sample and produces a list of calls made to numbers with no record of consent, and featuring known LiveVox pre-recorded voice indicators.

Further Modifications to the Scripts

22. As written, both scripts are easily modified to account for new information or changes in class definitions.

23. For instance, I understand that two components of the Class definitions are not incorporated into the script: the Qualifying Debt definition, the limitations on certain Result Codes and data sources in the definition of Qualifying Cellular Telephone Number.

24. However, based on my review of NCO's account notes and the call sample, I am confident that the scripts can be easily modified to query those fields as well.

25. By way of example, if the sample had included a column for "Client Numbers" as that term is used in NCO's account notes, and if I were provided with a look-up table showing the numbers for each of NCO's creditor-clients, I could easily modify the scripts such that the first step would be to limit the results to calls made regarding Qualifying Debts.

26. Likewise, if I were provided a list with a column for the transaction result codes for the associated datapaths, the scripts could be modified to utilize that data to exclude particular results—specifically, those suggesting any additional modes of consent—from the final lists. Specifically, I would exclude any phone number associated in any call record with any of the following Result Codes:

- For Datapath 13 – NY Marlin:
 - o NH = GOT NEW HOME PHONE;
 - o NW = GOT NEW WORK PHONE;
- For Datapath 22 – Credit Trust:
 - o CN = CAN BE REACHED NUMBR;
 - o GI = GOT INFORMATION;

- o GN = GOOD NUMBER;
- o IO = INFO OBTAINED;
- o NN = NEW TELEPHONE NUMBER;
- For Datapath 9 – Trigger NAG:
 - o CN = CAN BE REACHED NUMBR;
 - o GN = GOOD NUMBER;
 - o GW = GOOD WORK NUMBER;
 - o NN = NEW TELEPHONE NUMBER;
 - o UH = UPDATE NEW HOME#;
 - o UW = UPDATE NEW WORK#;
- For Datapath 7 – AMEX
 - o CN = CANBE REACHED NUMBER
 - o DO = ADDITIONAL INFO/NAME
 - o DW = INFO OBTAINED
 - o FW = NEW WORK PHONE
 - o GN = GOOD NUMBER;
 - o IV = GOOD NUMBER;
 - o MI = ADDITIONAL INFO/NAME;
 - o NH = NEW HOME PHONE;
 - o NN = NEW TELEPHONE NUMBER;
 - o PH = NEW TELEPHONE;
 - o SP = SPOKE WITH PRIMARY;
 - o TD = TELEPHONE DEBTOR;
 - o VN = VERIFY PHONE;
- For Datapath 99 – Main Data:
 - o CN = CAN BE REACHED NUMBR;
 - o GI = GOT INFORMATION;
 - o GN = GOOD NUMBER/NEW HM#

- o IO = INFO OBTAINED;
- o JL = JOB LOCATED/NEW WK#;
- o NN = NEW TELEPHONE NUMBER;
- o RO = PROCEED;

- For Datapath 2 – Main 2:

- o CN = CAN BE REACHED NUMBR;
- o GI = GOT INFORMATION;
- o GN = GOOD NUMBER;
- o GW = GOOD WORK NUMBER;
- o IO = INFO OBTAINED;
- o MI = ADDITIONAL, INFO/NAME;
- o NN = NEW TELEPHONE NUMBER;
- o UH = UPDATE NEW HOME;
- o UW = UPDATE NEW WORK#.

27. Additionally, if the sample contained a column providing the “source” for a phone number, the scripts could exclude calls made to numbers with a “type-in” source.

28. Likewise, should any additional information come to light that warrants refining the scripts (for instance, if NCO identifies additional action codes or transaction comments evincing consent, or additional dialer codes, or further LiveVox prerecorded voice codes), I could easily modify the scripts to reflect that new information.

The Remaining Records are Queried to Identify Only Cellular Numbers Called

29. The identification of cellular numbers at the time that they were called is a relatively straightforward process. The resulting list from the Python scripts contained calls to 39 and 12 unique telephone numbers in the Autodialer Class and Robocall Class scripts respectively. These lists were imported into tables of relational databases. A cell block identifier which is used to identify numbers that have been assigned as wireless

1 numbers was imported into another table of those databases. A query was performed to
2 identify which of the unique numbers were assigned as wireless numbers.

3 30. Next, the Neustar ported number lists were imported into tables, both
4 ported from landline to wireless and wireless to landline. Neustar is responsible for the
5 allocation and porting of phone numbers. Queries were run to identify those numbers
6 that were called after being ported from landline to wireless. Queries were also run to
7 identify those numbers that were called before being ported from wireless to landline.
8 The result was calls to 39 unique wireless numbers belonging to 39 unique NCO debtor
9 accounts from the Autodialer Class script, and 12 unique wireless numbers belonging to
10 12 unique NCO debtor accounts from the Robocall Class script. A total of 1105 calls
11 were made to 39 potential class members for the Autodialer Class, and 388 calls to 12
12 potential members of the Robocall Class.

13 31. The process outlined above to identify cellular numbers was used on the
14 sample data provided by NCO containing [REDACTED] records. I understand the overall
15 database from NCO will contain over 1 billion records. The process described above
16 will work exactly the same no matter the size of the dataset.

17 ***Exhibits Attached***

18 32. Attached as Exhibit A is a true and accurate copy of my most recent
19 resume.

20 33. Attached as Exhibit B is a true and accurate copy of the Autodialer Class
21 script described above.

22 34. Attached as Exhibit C is a true and accurate copy of the Robocall Class
23 script described above.

24 35. Attached as Exhibit D is a true and accurate copy of a tab-delimited
25 version of the Autodialer Class script described above.

26 36. Attached as Exhibit E is a true and accurate copy of a tab-delimited version
27 of the Robocall Class script described above.

28 37. Attached as Exhibit F is a true and accurate copy of the results of the

1 Autodialer Class script and cell block identifier process described above, showing 1105
2 calls to 39 unique cell phone numbers.

3 38. Attached as Exhibit G is a true and accurate copy of the results of the
4 Robocall Class script and cell block identifier process described above, showing 388
5 calls to 12 unique cell phone numbers.

6 39. I declare that the foregoing is true and correct subject to the laws of perjury
7 of the United States.

8
9 Executed in Spring Valley, CA, on this 23rd day of January, 2015

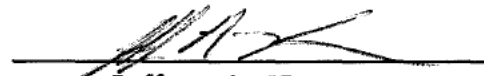
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13 Jeffrey A. Hansen
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EXHIBIT A

Jeffrey A. Hansen
Spring Valley, CA 91977
(619) 270-2363
Email: Jeff@TCPAwitness.com

SUMMARY OF QUALIFICATIONS:

IT certified professional with over 20 years of extensive troubleshooting experience

PROFESSIONAL EXPERIENCE:

Testified in the following:

I have been called to testify in *Craig Casey v. Valley Center Insurance Agency Inc.* (San Diego Superior Court Case No: 37-2008-00004378-SC-SC-CTL), *Stemple v. QC Holdings* (Southern District of California Case no: 12-CV-1997-CAB-WVG), *Hahn v. Massage Envy Franchising*, (Southern District of California Case No: 3:12-cv-00153-DMS-BGS), *Abdeljalil v. General Electric Capital Corporation*, (Southern District of California Case No: 12-cv-02078-JAH-MDD), *Jasminda Webb v. Healthcare Revenue Recovery Group, LLC*. (Northern District of California Case No: C 13-0737 JD), *AMANDA BALSCHMITER v TD AUTO FINANCE, LLC* (UNITED STATES DISTRICT COURT EASTERN DISTRICT OF WISCONSIN Case No: 2:13-cv-01186), *Jordan Marks v Crunch San Diego, LLC* (Southern District of California Case No. 14-CV-0348-BAS (BLM)), *Peter Olney v Job.com* (Eastern District of California Case No: 1:12-cv-01724-LJO-SKO), *Carlos Guarisma v ADCAHB Medical Coverages, Inc. and Blue Cross and Blue Shield of Florida, Inc.* (Southern District of Florida Case No: 1:13-cv-21016-JLK), *Farid Mashiri v Ocwen Loan Servicing, LLC* (Southern District of California Case No: 3:12-cv-02838), *Monty J. Booth, Attorney at Law, P.S. v Appstack, Inc.* (Western District of Washington Case No. 2:13-cv-01533-JLR), *Rinky Dink, Inc. d/b/a Pet Stop v World Business Lenders, LLC*. (Western District of Washington Case No. 2:14-cv-00268-JCC), *Michael Reid and Dave Vacarro v I.C. Sytems, Inc.* (District of Arizona Case No. 2:12-cv-02661-ROS), and I have served as an expert in over fifty (50) TCPA class action lawsuits.

2013-Present Founder

Hansen Legal Technologies, Inc., San Diego, CA

- Established and incorporated Hansen Legal Technologies, Inc. in 2013
- Developed operating procedures for computer forensic examinations.
- Developed proper protocols in preserving electronic evidence and following chain of custody.
- Provided Forensic services for clients for class action, civil, and other consumer cases.
- Oversee all discovery phase of cases.
- Assist counsel in interrogatories, depositions, and meet and confer meetings.
- Participated in Meet and Confer, 26f conferences and misc pre-trial meetings.
- Assisted counsel in developing litigation strategies in cases
- Assisted counsel in preparing discovery including interrogatories and document requests
- Assisted counsel in evaluating responses to interrogatories and document requests
- Assisted counsel in witness examination in depositions.
- Prepared declarations for Class Certifications, and for Motions for Summary Judgement.

2007-2013 Co-Founder

Hansen and Levey Forensics, Ft Lauderdale, FL

- Established and incorporated Hansen & Levey Forensics, Inc in 2007
- Established secure forensics laboratory for the San Diego office.
- Developed operating procedures for computer forensic examinations.
- Developed proper protocols in preserving electronic evidence and following chain of custody.
- Provided Forensic services for clients for class action, employment, civil, domestic, and juvenile cases.
- Oversee all discovery phase of cases.
- Assist counsel in interrogatories, depositions, and meet and confer meetings, and preparation for sanction hearings against opposing counsel and parties.
- Participated in Meet and Confer, 26f conferences and misc pre-trial meetings.
- Assisted counsel in developing litigation strategies in cases

- Assisted counsel in preparing discovery including interrogatories and document requests
- Assisted counsel in evaluating responses to interrogatories and document requests
- Assisted counsel in witness examination in depositions
- Performed on site acquisitions.
- Participated in mediation sessions.
- Provided Expert Testimony in Craig Casey vs. Valley Center Insurance Agency Inc.

2000-Present Owner

Pns724 San Diego, CA

- Provided complete IT solutions for hundreds of businesses and individuals including network design, configuration, forensics, and data recovery.
- Set up and maintained 672 line outbound call center with numerous auto dialers and predictive dialers. Maintained call lists, and DNC lists used to place hundreds of millions of calls over a five year period.
- Installed hundreds of POTS lines, "Turned up" at least 38 T1's and PRI's.

2006 San Diego Regional Computer Forensics Laboratory (FBI sponsored computer forensics Lab)

- Built several forensic machines with large fiber channel RAID assemblies for use in the field.
- Installed and configured systems for mobile laboratory
- Provided support in all areas from taking in evidence to calling case agents to pick up their evidence from finished cases gaining valuable experience in evidence handling.

2004-Present Systems Analyst

Amsec San Diego, CA / Lateott Bremerton, WA / HP Enterprise Services

- Provided ATM and Ethernet fiber connectivity for secure and unsecured DOD networks.
- Troubleshoot fiber connectivity issues on shore and ship facilities.

**2000-2004 Director of Training/ IT Director
Laptop Training Solutions, San Diego, CA**

- Provided Intrusion detection, incident response, and forensic services in a continuing effort keep the network and workstations secure.
- Planned, designed, and implemented network security for vital network services for 4 facilities, that were heavily attacked by varying methods, saving the company hundreds of thousands of dollars.
- Performed security risk assessment, performed IT control audits, developed countermeasures and provided a security policy to insure confidentiality, integrity and availability of resources.
- Performed Gap Analysis of existing systems and desired systems and migrated from Windows 2000 DNS and Exchange 2000 servers to Linux servers running Postfix and BIND to provide a more scalable network for 4 facilities providing the company the means to achieve a 450% growth.
- Planned, installed and maintained several school networks involving numerous Domain Controllers, UNIX servers, print servers, multiple nodes and routers.
- Installed and programmed Nortel phone system improving the company's ability to handle calls.
- Planned, organized and instructed computer certification courses including Microsoft Certified Systems Engineer (NT4.0, Win2000 MCSE, 2003 MCSE), Cisco (CCNA), A+, N+, Linux+, I-Net+, Security+, MOUS and Web Page Design (HTML, Javascript, DHTML, Flash 4, Flash 5, Fireworks3, Photoshop 5) resulting in hundreds of certified students.
- Provided students with a hands on training environment involving networks with Multiple Windows NT and Windows 2000 Domain Controllers, several workstations (Windows 95,98,NT,ME, and 2000 Professional), Novell, Unix, and Exchange Servers, and Cisco routers.
- Planned, organized and instructed a corporate training environment for TCP/IP which included addressing, standards, troubleshooting, subnetting, routing and Frame Relay
- Provided long distance support via telephone to hundreds of MCSE students throughout the country.
- Managed other instructors on training techniques for the MCSE, CCNA, Linux+, A+, Security+ and Network + courses providing a consistent system of training in all facilities.

1998-2000 Electronic Test Technician 3

Action Instruments, San Diego, CA

- Tested various types of electronics for industry and signal conditioning.
- Troubleshoot and documented nearly 10,000 component level repairs.
- Assisted in improvements to the manufacturing process.
- Identified problems in product design and provided solutions to correct the problems.

**1996-1997 Network, Computer and Computer Monitor Technician /Instructor
United States Navy, Shore Intermediate Maintenance Activity, San Diego, CA**

- Installed and connectorized fiber optic computer networks throughout Naval Station San Diego and North Island.
- Provided network troubleshooting and management for large scale mission-critical DoD networks with over 600 nodes, routers, and servers.
- Provided upgrades, maintenance, troubleshooting, security, and repair of personal computers for 600 station LAN and the US Pacific Fleet.
- Troubleshoot and repaired over 100 computer monitors to component level without technical manuals.
- Increased successful monitor repair from 10% to 95%.
- Trained shop personnel on computer monitor troubleshooting and repair.
- Researched parts, materials and techniques for Computer Monitor repair.
- Developed curriculum and instructed monitor troubleshooting and repair for the Navy Microcomputer Repair course.

**1993-1996 Electronics Technician / Computer Technician
United States Navy, USS Mahlon S. Tisdale (FFG-27), Combat Systems Division.**

- Provided incident response and performed forensic type of services for 36 computers following Employee sabotage.
- Troubleshoot and maintained Harris 300 AN/UYK-62(V) mini-mainframe, running Vulcan OS, and all terminals
- Troubleshoot, maintained, and upgraded hardware and software for 36 shipboard computers.
- Identified security threats, and developed countermeasures for computer systems on board.
- Troubleshoot, repaired and maintained – at component level - various Univac systems making up a complex network of computers used in communications, navigation, and weapons guidance.
- Assisted in planning and running work center.

**1990-1992 Radio, Television, VCR Technician
LBJ Television, Wheat Ridge, CO**

- Performed component level troubleshooting of televisions, VCRs, and stereos.
- Performed in home repair of televisions.
- Introduced the repair of CD players to the company.
- Provided technical support to customers over the telephone.
- Handled customer service issues related to television repair.

CERTIFICATIONS:

MCP 4.0, A+, Network+, MCP 2000, MCSA, MCSE, Linux+, I-Net+, Security+, CIW Security Analyst.

Certified by Bureau For Private Postsecondary And Vocational Education, in the States of California and Oregon, as an Instructor for Computer Installation and Repair Technology, Computer Systems Networking and Telecommunications, Micro Computer Applications, Microsoft, Windows, Excel

GUEST APPEARANCES:

- Featured in Microsoft Redmond Magazine Sep 2007
- Computer Talk 760 KFMB San Diego, CA
- Computer Bits KBNP 1410AM and KOHI 1600 Portland, OR
- San Diego Profiler 760 KFMB San Diego, CA

PUBLIC POSITIONS:**June 2012-Present Board Member, Spring Valley Community Planning Group**

Elected board member of the Spring Valley Community Planning Group from April 2012 to Present. The purpose of the group is to advise the San Diego County Department of Planning and Land Use, the Planning Commission and the Board of Supervisors on matters of planning and land use affecting Spring Valley south of Highway 94. Members are volunteers and locally elected representing the interests of the people of Spring Valley. Items heard by the group include but are not limited to: Site Plans, Signs, Roads & Infrastructure, Parks & Recreation, Lot Splits, 2nd Dwelling Units, Day Care, Alcohol License, Tree Removal, Re-Zones.

EDUCATION:

2006 Access Data Forensic Toolkit
San Diego Regional Computer Forensics Laboratory, San Diego, CA

2006 Guidance Software Encase Forensic Suite
San Diego Regional Computer Forensics Laboratory, San Diego, CA

2005 E-discovery – Why Digital is different – by Craig Ball
San Diego County Bar Association, San Diego, CA

2003 Security: Hardening MS Windows 2000 Server Family, IIS and Exchange 2000 Servers
CBI Systems Integrators, San Diego, CA

1996 Navy Standard Microcomputer Repair
PRC Inc., San Diego, CA

1996 Fundamentals of Total Quality Management/ Team Skills and Concepts
Shore Intermediate Maintenance Activity, San Diego, CA

1993 AN/SPS-55 Surface Search Radar
Service School Command, San Diego, CA

1993 Advanced Electronics School, Communication Systems and Radar Systems
Naval Training Center, Great Lakes, IL

1992 Electronic Theory
Naval Training Center, Orlando, FL

1990-1991 Radio, Television, VCR Repair
Warren Occupational Technical Center, Golden, CO

1989-1990 Electronic Theory
Warren Occupational Technical Center, Golden, CO

1991 Columbine Sr. High School, Littleton, CO

SECURITY CLEARANCE: Secret

References available on request

EXHIBIT B

EXHIBIT C

EXHIBIT D

EXHIBIT E

EXHIBIT F

EXHIBIT G

